

an illumination apparatus comprising a liquid light guide coupled to the plate for highlighting the plurality of cells in a relatively even spatial manner for image capturing purposes;

a robot arm for automatically collecting multiple of said cell holders to facilitate capture of the images of the cells or cell structures from said multiple cell holders; and

software that analyzes the images and characterizing features of the cells or cell structures in the images.

30. The system of claim 29, further comprising a stage for moving the cell holder with respect to the image capturing device.

31. The system of claim 29, wherein the illumination apparatus comprises sub-elements, at least one of the sub-elements being positioned away from the image capturing device to reduce a possibility of vibration from the at least one sub-element being transmitted to the image capturing device.

32. The system of claim 29, wherein the digital representation comprises a plurality of regions and objects.

33. The system of claim 29, further comprising a computing device connected to a database storage device and the image processing device.

34. The system of claim 29, wherein the image capturing device provides a magnification of at least about 1X to capture the image of the site.

35. The system of claim 29, further comprising a filter wheel having a plurality of filters, each filtering for a different color.

36. The system of claim 29, wherein the liquid light guide is characterized as a flexible member that substantially prevents vibration from an element of the illumination apparatus to be transferred to the image capturing device.

37. The system of claim 29, further comprising a bar code mechanism allowing bar codes to be read from multiple cell holders when the cells they hold are to be imaged.

38. The system of claim 29, further comprising software that controls operation of the image capturing device.

39. The system of claim 29, further comprising software for creating and sequentially naming files of the images.